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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/703,282 | 10/31/2000 | Vadim Gektin | Sun-P5363 | 2267 |

7590
03/18/2002
Kelly McCrystle
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| EXAMINER |
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DUONG, THO V

| ART UNIT | PAPER NUMBER |
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3743

DATE MAILED: 03/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/703,282

Applicant(s)

GEKTIN ET AL.

Examiner

Tho V Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2000 and 08 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-6 and 8-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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DETAILED ACTION

Election/Restrictions

Claims 3 and 7 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 3. Claim 3 is not readable to the elected species because the limitation of "said fin are hollow" is directed to the non-elected species of figure 6. Claim 7 is not readable to the elected species because the limitation of "said pump is disposed adjacent said base" is directed to the non-elected species of figure 5.

Applicant's election with traverse of species of figure 3 in Paper No. 3 is acknowledged. Applicant has not stated the ground of the traversal. Therefore, The requirement is still deemed proper and is therefore made FINAL.

Claim Objections

Claim 1 is objected to because of the following informalities: on line 11, "Said chamber" should not be capitalized; on line 14, "cooing" appears to be a typo error of "cooling". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1,2,4-6 and 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Batchelder (US 6,019,165). Batchelder discloses (figures 5, 7, 8 and column 7, lines 16-19) a liquid heat sink comprising a base (20) having a first and second surfaces (206, 212); a plurality of aluminum fins (28) extending from the first surface; the base (20) further including a chamber disposed between the first and second surface; the chamber further including a divider (210) with a plurality of flow dividers (224) disposed within the chamber and adjacent the first surface; a pump (54) is disposed within the chamber; a cooling fluid such as water disposed within the chamber; and a fan (30) attached to the fins.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Reichard (US 5,316,077) discloses a heat sink that has a pump attached to a base of the heat sink.

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Hamilton et al. (US 5,763,951) discloses a liquid heat sink having a pump circulating a cooling fluid inside a chamber.

Beilstein Jr. et al. (US 5,309,318) discloses a thermally enhanced semiconductor chip package that has a flow chamber attached to a plurality of fins.

Kioan Cheon (US 5,731,954) discloses a cooling system that has a pump disposed within a flow chamber.

Wargo (US 6,257,320) discloses a liquid heat sink device that has two layers.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Tho Duong whose telephone number is (703)305-0768.

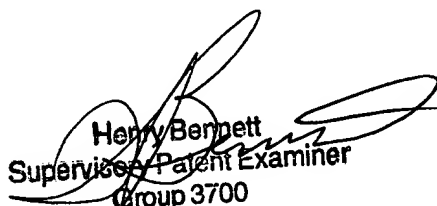
The examiner can normally be reached on from 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennet, can be reached on (703)308-0101. The fax phone number for the organization where this application or proceeding is assigned is (703)308-7764.

Any inquiry of a general nature or relating to status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0861.

Tho Duong

February 28, 2002.


Henry Bennett
Supervisor, Patent Examiner
Group 3700